



## MECKLENBURG COUNTY FIRE MARSHAL'S OFFICE

Plans submitted to the Mecklenburg County Fire Marshal's Office will be reviewed in accordance with all local, state and federal requirements. Referenced materials to verify all requirements are met include, but are not limited to the North Carolina State Building Code: Fire Code, Building Code, Mechanical Code, Plumbing Code, the National Fire Protection Association (NFPA), and other referenced standards as required.

**Note:** This information is a list of the most common items related to submitting plans to our office. There are many additional requirements that apply to a specific project. Please contact our office at (980) 314-3070 if you have specific questions related to your project.

### **FIRE SPRINKLERS**

Commercial and residential structures with a proposed or existing sprinkler system shall meet, at a minimum the following requirements on the submitted construction or engineer drawings:

- Sprinkler riser details:
  - Include water flow and tamper switches.
  - Include all valves.
- Design criteria shall include a conceptual sprinkler layout for all spaces.
- Underground piping must rise 12 inches above ground to enter building.
- Riser shall turn up within 12 inches of exterior wall past the foundation.
- Buildings larger than 50,000 square feet require multiple risers.
- 8 inch water main can split within 5 feet of building.
- Minimum piping size for a fire line shall be in accordance with NFPA 24.
- 4 inch piping is minimum size permitted for a Fire Department Connection line.
- 2 inch domestic water shall not share the fire line.
- Location of underground fire main going into building shall be shown.
- There shall be a minimum temperature of 40 degrees for the fire line at Back Flow Preventer.
- Fire Department Connection's shall be located after the fire hydrant.
- Travel distance from the fire hydrant to the Fire Department Connection shall not exceed 200 feet for a NFPA 13 system and 750 feet for a NFPA 13R system.
- 2-way Fire Department Connection shall be used on all NFPA 13 systems.
- Fire Department Connection's shall require 10 feet of clearance in all directions.
- Sprinkler systems are required to be monitored by an approved fire alarm.
- Sprinklers installed in shell/uninhabited structures shall maintain a minimum temperature of 40 degrees.
- Standpipes are required where the floor level of the highest story is located more than 30 feet above the lowest level of the fire department vehicle access.
- Standpipes are required in all underground building levels.
- Standpipe valves are required to be monitored with tamper switches.
- Standpipe valves shall be located on floor level in stairwells and shall be installed so no hose will make a 90° bend.